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ABSTRACT

Designed to serve as a guide to resources on artificial intelligence (AI) and expert systems, this Library of Congress bulletin is divided into 18 sections that contain lists of books, journal articles, periodicals, associations, and other sources of information. A brief statement of the scope of the guide introduces the sections, which are listed here with the number of citations included for each: (1) introductory texts (2); (2) subject headings used by the Library of Congress under which books on AI can be located in most catalogs (24); (3) background texts (12); (4) basic texts (10); (5) additional texts (14); (6) collected works (7); (7) related texts (13); (8) handbooks, encyclopedias, and dictionaries (8); (9) bibliographies (3); (10) state-of-the-art reviews and conference proceedings (17); (11) government publications (5); (12) abstracting and indexing services that index relevant journal articles (11); (13) journals that often contain articles relevant to AI (12); (14) representative journal articles (19); (15) subject headings for reports and other types of literature indexed in Scientific and Technical Aerospace Reports and the U.S. Government Reports & Announcements Index; (16) selected technical reports from the National Technical Information Service (NTIS) (10); (17) selected materials available in the Library of Congress Science Reading Room (7); and (18) additional sources of information--e.g., associations and university departments (12). (JB)

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ARTIFICIAL INTELLIGENCE
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SCOPE: Artificial intelligence is an emerging technology. This technology is concerned with understanding the nature of intelligent action and constructing computer systems capable of reason by which machines can learn functions normally associated with human intelligence. This includes problem solving, perception, learning, symbolic activity, creativity, language and related processes. The interdisciplinary nature of artificial intelligence is reflected by its appearance in the literature of the engineering sciences, mathematics, linguistics, psychology and the biological sciences. The interaction between automatic control and living organisms is not included in this guide.

Related titles in the LC Science Tracer Bullet series include Industrial Robots (TB 80-19), CAD/CAM (Computer Aided Design/Computer Aided Manufacture) (TB 85-7) and Brain and Behavior (TB 79-3). Not meant to be a comprehensive bibliography, this Tracer Bullet is designed--as the name of the series implies--to put the reader "on target."

INTRODUCTORY TEXTS

Gevarter, William B. Artificial intelligence, expert systems, computer vision, and natural language processing. Park Ridge, N.J., Noyes Publications, c1984. 226 p. Q335.G48 1984

Ritchie, David. The binary brain: artificial intelligence in the age of electronics. Boston, Little, Brown, c1984. 212 p. Bibliography: p. 199-205. Q335.R58 1984

SUBJECT HEADINGS used by the Library of Congress, under which books on artificial intelligence can be located in most card, book, and online catalogs, include the following:

ARTIFICIAL INTELLIGENCE (Highly relevant)
EXPERT SYSTEMS (COMPUTER SCIENCE) (Highly relevant)
HEURISTIC PROGRAMMING (Highly relevant)
AUTOMATIC SPEECH RECOGNITION (Relevant)
COGNITION (Relevant)
FUZZY SETS (Relevant)
FUZZY SYSTEMS (Relevant)
LINGUISTICS--DATA PROCESSING (Relevant)
MACHINE LEARNING (Relevant)
MACHINE TRANSLATING (Relevant)
OPTICAL PATTERN RECOGNITION (Relevant)

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 CYBERNETICS (Related)
 ROBOTICS (Related)
 ROBOTS (Related)
 ROBOTS, INDUSTRIAL (Related)
 INFORMATION THEORY (More general)
 LOGIC, SYMBOLIC AND MATHEMATICAL (More general)

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 See: Artificial Intelligence

Artificial Intelligence Abstracts (1984-) Q334.A76

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 See: Adaptive Systems QA76.C548*
 Artificial Intelligence
 Brain Models
 Heuristic Programming
 Learning Systems
 Neural Nets
 Self-Adjusting Systems

Computer Literature Index (1971-) QA76.Q3*
 See: Artificial Intelligence
 Expert Systems

Electrical & Electronics Abstracts (Science Abstracts--Series B) (1898-)
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 See: Adaptive Systems
 Artificial Intelligence
 Brain Models
 Heuristic Programming
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Engineering Index (1892-) Z5851.E62*
 See: Computer Programming--Algorithms
 Computer Programming Languages
 Speech--Computer Applications
 Systems Science and Cybernetics--Artificial Intelligence
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*Note: Consult reference librarian for location of abstracting and indexing services in the Science Reading Room.

International Aerospace Abstracts (1961-) TL500.I57*

See: Artificial Intelligence
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 Computer Vision
 Expert Systems
 Pattern Recognition
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See: Artificial Intelligence
 Computer Programs--Technological Innovations
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 Logic Design
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 Turing Machines

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See: Artificial Intelligence Z1223.A18*

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See: Artificial Intelligence

Readers' Guide to Periodical Literature (1900-) AI3.R45

See: Artificial Intelligence
 Expert Systems (Computers)
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JOURNALS that often contain articles relevant to artificial intelligence are

AI Magazine Q334.A5
Artificial Intelligence Q335.A785
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ADDITIONAL SOURCES OF INFORMATION

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